

3/1/01 with La Coochee River

Groundwater / Surface water interaction Study  
 running upriver from Dunceton boat dock 21' whaler  
 200 Merc. outboard. Using low voltage boomer.  
 Start at R.R. pilings (upriver from dock) <sup>upstream</sup> ~~south~~ of Rainbow R.  
 P. cloudy, river calm. Crew Dana W., Jim F., Scott McBride,  
 Dana Yobbi.

River stage mid-base flow. 14' feet a bridge  
 1200/01 04WG-W01 at rr bridge - Net recording

1702 Sod 04301 (start recording) ~~at~~

1707 Soc. cross-talk in signal. Returning downstream,  
 grounding generators. Repeat line.

turning around at bridge

1718 Sod 04302 just downstream of bridge.

grounding scared to help set filter from 400-4400

1725, picking up speed to 3Kts (prev. 2.0 kts) to test noise

1728 feature at ~~1728~~ 50ns

173338 deep feature?

174257 down-dipping reflectors

1749 down-dipping - possible window

175321 possible sink - surface expression.

1802 tight pass

1818 possible solution feature (620 on map)

1824 "

1829 persistent reflector ~28ns

1836 turning into "cone" sink? starting new line.

1837 Sod 04303 heading into sink area.

1844 leaving sink area into river

1846 psf (1649)

- 185721 psf, down-dipping reflectors  
 185823 psf down to 50 ms.  
 190026 reflectors x-ing (noise)  
 1908 psf  
 1914 turning into horseshoe bend  
~~1955~~ 191553 turning.  
 191645 turning.  
 191825 stuck on bridge, ran away.
- 1943 Started just downstream of previous turn.  
 Sol 04309 running off at one generator - noise seems to have dissipated  
 1951 psf  
 1956 grounded generator to water - seemed to reduce noise  
 200237 psf  
 2004 high-angle reflectors at 50 ms.  
 2009 bluff on South shore.  
 200954 surface expression with ringing at depth.  
 201537 deep reflectors (70 ms)  
 202223 down-dipping reflector at 30 ms.  
 202940 deep psf ~ 50 ms.  
 2038 Start of low-angle-down-dipping reflectors @ 30-40 ms  
 2041 bend in river  
 2042 parabolic reflector intersecting 2038  
 2047-2048 window  
 2057 large feature, low-angle reflector  
 2010-2011 parabolic feature reflector ~35 ms  
 206630 approached bank to check reflector, appeared to follow  
 211733 crossed river other way, 25 ms reflector rose to 20 ms  
 212107 Sharp turn  
 212143 psf - turn?

2126 window -

2130 reflector <sup>at 20ms</sup> didn't respond to "bank test"

2131 window

2140 big bend in river

2143 ref' Strong reflector coming up ~ 25 ms

2146 bank test, reflectors diverge

2148 bank test the other way, no response

2150 , cutting motor, running trolling motor for noise test.

2155 edl (still on trolling motor)

~~2156~~

2156 Sol 04/305, under power lines.

prop appears to add noise to signal, still one other  
noise pattern exists - electrical.

2158 power line interference

2203 resume outboard operation.

2207 pulled in phones to check (at boat camp)

2209 edl.

3/2/04 Withlacoochee River

Starting at Holder Boat Ramp, heading upstream (at end of previous line)

Skies clear, river calm. Crew Dana W., Jim F., Scott M., Dana Y.

Sol 04B06 1542 zulu. (1042 local)

1538 , running about 2.6 kts, approaching bridge. very rocky near surface.

1540 - 1550 high river flow, limestone at surface.

1553 bank test, reflector follows at 30 ms follows

1557 bank test, no apparent response.

1602 hit rock, slow down kts 1.09 ; 1603 resume.

1608 maneuver to avoid log.

1611 hit rock, stop line

move downstream, reposition and start new line which overlaps tail end of previous line.

1616 Sol 04B07

1619 nearing end of previous line (along other bank)

1621 bend in river

1627 bank test, reflectors respond

1630 increase power supply volts

1645 river narrows, corrector ~~unavailable~~

1648 terrain opens up into swampy environment (less bank)

1652 bend in river

1654 slow to avoid tree

1656 bkfst rt. bank returns, near blue spring outflow

1659 rt. bank diminishes

1704 River calms, picked up speed. So slowed down ~0.5 kt. Speed ~1.7 kt

1715 passing blue spring on right

1717 turning around, stop line

04308

Start new line, heading downstream

1720 downstream of blue spring, turning around

1722 complete turn, heading upstream

1725 at spring.

1732 entering Lake Panasoffkee / Apopka area

1741 ran out of water - end line

1755 relocate channel, start new line 04309

very shallow water depth in this area

1811-1815 water opens up

1819 - 1826 water opens up

1834 Stock, stop line

Tied float to end of hydrophones.

1837 End 04310

1846 31 approached bank.

1849 ~~the~~ water opens up., 1851 banks approach

1855 hit bottom, slow.

1901 Change in seismic character.

1902 back into a large channel.

1908 large feature, dropping away. Did a bank test - no response

1909 bank approaches, seen in shallow seismic

1910 turning around for another look. Not ending line

19130 ending turn; heading downstream

1913 deep features,

1914 turning back upstream, 1915 end turn.

1917 & deep feature.

1925 possible features, no bank-distance change

1937, deep reflector 40 ms. Doing a bank test, reflector appears to respond.

1939 fractures?

1946-20 passing gum slough.

1948-1949 deep reflector drops away, (30-40 ms), is not tracking bank.

~~River side~~ → 1954 bank test. some mid reflectors respond. No response from deep refl.

1956 pick up speed 1/2 kt. Speed ~3.0 kt

1958 speed 2 kt., possible solution feature?

2007 reflector @ 20 ms possibly bank.

2008 river narrows.

2010-16 deep reflectors, not tracking bank.

2011-2051 reflector dropping down 30-45 ms, then back up to 30 ms - possibly rt. bank.

2018 bank test (heading toward left bank). Deep reflector does not respond.

2019 sb water depth shallows - slow. Mid (25 ms reflectors seen to respond to bank test.)

2019 stuck on bottom.

2021, reverse prop to clear weeds.

2022-44 resume normal speed.

2026-2030 river wide.

2050 bank test, reflectors at 40 ms, 60 ms (?) respond.

2052 head towards river center - reflector @ 40 ms responds.

2054 maneuver to avoid air boat.

2059 start new line (traces > 33 k)

2100 04311

2113 bank test, deep (50 ms) and mid (30-40 ms) reflectors respond.

2122, i.d. possible feature at Slough, turning around for another pass. 2023 turn complete

2125 turning around, heading upstream. 2126 turn complete.

2127 ~~feature~~ reflectors approaching surface. (bank?)

2128 deep reflectors (50 ns) not bank.

2152 psf

2205 passing under highway bridge, lose GPS

2209 hit bottom, slow

2210 end at load ramp ~~Hwy 470~~ SR 44

A lot of weeds noticed on sled

3/3/97 With LaCoochee R. Seismic Survey Day 3 Julian 63

Boat Ramp at Hwy 44, heading upstream to Wysong Dam.

Skies clear, river calm. Crew Dave W., Jim F., Scott M., Danny.

1457 Sol 04B12 turning upstream. 1458 complete turn  
Speed ~ 1.7 kts

1508 very shallow, losing signal.

1518 ran out of water, maneuvering.

1520 resume speed - direction.

1528 very shallow water depth. Speed 0.4 kts

1528 over load alarm - end line

Sled and phones covered with approx. 1,025 kg of weeds.

1551 maneuver to deeper water ~4', start new line upstream  
Sol 04B13

1557 shallow again, slow

1558 ed. + maneuvering

Trying to attach banner + phones to boat sides to reduce  
depth problems + weed accumulation.

1613 Sol 04B14 upstream of previous

1618 ed. too shallow - maneuver

~~1622~~

1627 went into small spring ~ 30' across Started line

04B14A, too moved out of spring with into river, speed variable

1634 moving upstream.

1637 bank test

1637-1655 trying different phone/sled config., nothing improves). Going  
back to old set up. EOL

1656 Sol ~~04315~~ 04315 to about 1 mile from dam.

1659 end weed cleaning

upstream of dam. (wysung)

1848 Sol 04316 heading up "lake"

1851 turning around, then heading towards dam

1855, turning crossing lake to other shore

1856, heading up rt. bank

1900, turning around heading downstream diagonal across ~~the~~ lake

1902, turning upstream along left bank 1904 straight

1907, turning downstream

1909, turning to cross lake

1910, turning upstream, duplicating \* 1902 - 1907.

1919, water shallowing - turning around

1922, turning upstream along left bank

1933, psf - parabolic returns 60ms

1936, turning around to re-curvey 1933

1940, turning around heading upstream. 1941 turn complete.

1942, similar features to 1933

1944 deep features 50ms

1952 getting shallow

1953 deepening a little <sup>widening</sup> reflector at 40ms might be bank

1955 reflectors at 40ms should not bank

1957 rt. bank opening up

2000 turning around to investigate high angle reflector

2004 turning around, heading back upstream

2016 heading up canal to <sup>canal to Lake Poncaoke on</sup> between 2 banks of bed left.

2036 bend in river, very narrow, winding.

2057 re-entering zone of deep parabolic features

Elevation ~50'

2110 psf 40-60ms

2121 mixed out on traces. eol

↳ low angle reflector near surface

2122 Sol 04617 at Juniper creek

2132 deep parabolic features

2134 rock outcropping at surface.

2141 nearsurface feature, does not follow bank direction.

2149 psf e 30ms.

2153 feature does not seem to follow bank.

2157 maneuvering around trees in river

2158 eol fallen tree across river

2203 Sol other side of log. Heading upstream.

2208 River well  $\frac{1}{2}$  mile west, correlate to 25 ms reflector?2209-2210 surface reflectors may correspond to "opening" of banks.  
"closing"

2218 river opens up. (Trails end camp)

2234 big lake

2239 deep features 60+ms

2240 turning

2244 banks closing in (leaving lake). wrong creek eol

move from back to lake. find next creek. Rederby

2252 Sol 04619 heading towards Hwy 48 bridge

2255 rt. bank opens up. Deep front features 60+ms

2259 features? bank? Dunn.

2300 features at 40 ms appear too deep to be bank.

2303 could be bank, seems too deep (bank ~30' from 50ft)

2305 eol eod at boat ramp

NOTE: ALL NAV TO THIS POINT WAS RECORDED IN UTM ZONE 18

3/4/04 Whitefacechee River Survey Day 4

(SR Y#)

Survey upstream from Wynhaven boat ramp. Skies clear,

river calm. Crew Dennis W., Tim F., Scott M., Dann Y.

USING UTM ZONE 20N E 17 FROM HERE ON (PREV. ZONE 18)

1408 Set 04320 overlapping end of prev. line.

1409 crossing under SR 48 highway bridge.

1411 banks wide open.

1416 turning around to verify record.

1418 turning around, feature appears to have been caused by plant material on the ground ~~water~~ wire (in the water)

1419 portion of feature reappears - may not be ground issue

1422 Turning around, heading downstream. Sounded 3.1 kts

1426 Turning around, heading upstream down middle.

1429 Could be ringing off the bottom. River bottom thin veneer on rocky bottom.

1433 rk bank opens up.

1436 beginning turning 90° toward "lake"

1440 angling back downstream

1442 angling upstream

1444 deep feature (80 ms), seen previously?

1452 leaving "lake" 1453 maneuvering.

15031 psf 40ms

1509 psf 30 ms. at spring.

1510 maneuvering. 1511 turning around heading downstream.

1514 turning around heading upstream.

1515 psf., does not appear to be bank.

1518 possible deep features

1520 some deep features, does not appear related to bank.

1521 turning, angling towards oxbow inlet.

1522 turning, angling downstream toward river.

Elevation ~ 47'

1524 psf 40 ms.

1525 turning upstream

1525 48 deep feature

1527 parabolic reflectors 40 ms., not related to banks

1528 ~~psf~~ psf 35 ms.

1531 psf 60 ms.

1532 turning angling across open area.

1534 turning, angling downstream

1538 turning upstream. speed 2.7 kts

1537 deep feature

1540 banks closing in.

1545 possible structure shallow - boil (or eddy current eddy) noted at surface

1547 near surface reflectors may be associated with left bank.

1548 picked up RPM to counter ↑ current.

1551 rising reflectors at 20 ms may be associated w/ left bank. Deeper reflector is not.

1556 psf 50 ms. updrifting reflector is not bank.

1559 turning around, heading downstream.

1559 58 turn complete.

1600 reduce speed

1600 47 deep features not associated w/ banks.

1602 turning around, upstream, 1603 to turn complete.

1604 deep feature -

1615 end, starting new line (max. trace) 04/321

1625 deep feature 60ms

1642 two bends in river, 1643 48 bends complete

~~1644~~ 1646 surface depression with

1648 deep features not associated w/ banks

1651 big, deep feature

1653 turning around to re-investigate.

1654 repeat of 1651

1656 turning around, heading upstream., 1657 turn complete.

\* 1703 parabolic reflectors at depth

1708 wide open and shallow., 1718 muddy bottom.

1721 banks closing in.

1729 col at boat ramp Hwy 478

1741 sol 04B22 at Hwy 478 boat ramp.

using additional generator to 9 voltage for power supply. (200 watts)

1747 very tight banks

1748 boomer hooked up - clear. Decrease voltage

1750 increase voltage to 500, 1751 down to AGC.

1756 turning around, 1757 turn complete

1759 turning around, heading upstream, 1800 turn complete - 2.65 kts.

1802 posf 40-50 ms.

1804 at Hwy bridge. 1812 entering withacoochee state forest  
- deep parallel reflectors are grounding noise -

1822 col. Going back to 1 generator.

1827 sol 04B23 ~~detectors~~ at same spot as end of prev. line.

1842 river very narrow

\*

1845 hit something - slow speed 1.75 kts

1846 very shallow. 1852 bend in river. 1856 hit log

1859 maneuvering difficulty. shortening sled distance

found different channel (prev. one died)

1920 sol 04B23 heading upstream. Channel narrow, maneuvering slow. 1.7-2.0 kts

1947 col to maneuver around log

1953 Sd 04/324 a little bit up river. River still narrow & winding. 4/1055.  
1956 pulled in sled temporarily to maneuver  
2004 dropping sled back (looks like river is opening up a little)  
2009 hit log stop 2012 resume 2013 hit log  
2016 stop line

04/325 - started but ran out of generator fuel.

2028 Sd 04/326

2041 adjacent to Rome wells withacoochee R. #4

2044 2 ~~bend~~ bends in river.

2047 bend in river

2053 river widens a little. Change in ~~the~~ vegetation (to scrub oak)

2057 bend in river. 2058 end, end.

3/5/04 with/acoachec R. Survey. Day 5

Elevation ~ 21' ft.

Near I-75 + Silver Lake, heading upstream. Skies clear river calm.  
Crew Donaw., Jim F., Scott M., Don P.,

1404 ± (908 locs) sal 04827 slightly overlapping <sup>end</sup> of previous line  
speed ~ 2.0 kts.

1419 turning around to investigate reflector. 1420 30 turn complete.

~~1421~~ 142157 turning around, heading upstream.

1427 psf

1430 psf deep 50-60 ms.

~~1431~~ 1431 turning up short branch on river. 143156 turning around out of branch.

1433 turning downstream. 1436 29 turning upstream. 143717 turn done.

1439 psf repeat.

1444 psf 40 ms, not bank.

144641 bank test 144727 resume upstream direction

1452 at ~~the~~ I-75 bridge 1453 power lines @ silver lake

1457 middle of lake, w.d. ~ 10' with a gooey bottom

1507 Slowing, entering small channel. Turning around 150817 turn done

1510 turning into channel.

1507 - 1511 deep reflectors psf. Might be bank associated w/ small island.

1512 psf. Slowing. 1514 heading into narrow channel

1516 heading into river

1524 passing Little withacoachec. River.

1526 possible shallow feature.

1531 bend in river 1535 bend in river

1540 scour associated w/ bend in river.

1544 bend in river, 1548 slowed for maneuver.

1612 end max trace. Bottom variable 5-10' deep. Hard sand/rock.

1612 sal 04828

1620 slow ~~for~~ for maneuvering

18.75  
25  
37.5  
150  
18.75  
56.25

16 of

LINE NOT RECORDED

- 1627 maneuvered through tight spot  
1638 end to deal w/ obstructions  
1633 Sol 04329 resume  
1634 bend in river, 1642 slow to avoid tree, 1652 slow to maneuver  
1655 psf shallow  
1657 2 bends in river., 1703 bend, 1704 slow.  
1704 feature?, bank?  
1705 turning around, heading downstream.  
1710 - 1712 turning around, heading upstream.  
1716 bend (1703), 1719 bend., 1720 slow, 17217 resume  
1725 slow maneuver. 172633 resume, 1729 slow ↑ 1730 resume  
Speed < 2 kts. dog swam across hydrophone
- 1732 slow for dog. 1733 resume, 1734 bend  
1745 maneuver - slow. bends - 1748
- 1750 Sol 04330 1752 bend. 1757 slow.  
1756 psf shallow.  
1759 at Hwy 50 bridge - end stop.

Return to Silver Lake, at top' river mouth.

- 2007 Sol 04331, turning in w river mouth to lake.  
200928 normal course.  
2011 turn lakeward 201130 end turn  
201215 slow slow., 2014 turn toward w. river mouth 201513 turn end.  
201742 turn lakeward 201815 turn complete.  
2019 depth ~ 9' sandy bottom. 2020 messin' with phones  
2021 turning into cove., 2024 turning out of cove 202527 turning out of cove  
2033 turning. 2042 turning. 2043 turning. 2044 turning.  
2046 & 2047 psf  
2048 turned off boat motor 204929 turn on boat motor  
2058 end end end at boat rope